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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 2, 9-12, 15, 21, 23-26, 28-39, 51, and 52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
2. Regarding claims 1 and 9, the claims include "wherein steps (i) and (n) are executed so that said first image display and said second image display are updated during different periods of time which are separated by at least one time period of current exposure in both said first imaging plane and said second imaging plane." Although the specification as originally filed describes obtaining scatter signals during different periods of time which are separated by at least one time period of current exposure in both said first imaging plane and said second imaging plane (fig. 4, #100 and 144), there is no description of updating being done during different periods. In other words, there is no description with regards to the timing of when the displays are updated. Since the specification fails to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention, the claims have been rejected for failing to comply with the written description requirement. Claims 2, 10-12, 15, 51, and 52 are rejected for the above reason by virtue of their dependency.

3. Regarding claims 21 and 29, the claims include wherein "said first digital data and said second digital data are respectively modified during different periods of time." Although the specification as originally filed describes obtaining scatter signals during different periods of time (fig. 4, #100 and 144), there is no description of modifying data during different periods. In other words, there is no description with regards to the timing of when the data is modified. Since the specification fails to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, the claims have been rejected for failing to comply with the written description requirement. Claims 23-26, 28, and 30-39 are rejected for the above reason by virtue of their dependency.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 9-12, 15, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al. (US 6980626) in view of Nonaka (JP 2000-102529).

5. Regarding claims 1 and 9, Groh et al. discloses a method comprising the steps of generating a first x-ray flux in a first imaging plane (fig. 1, #4), generating a first image readout (col. 4, lines 13-18), digitally sampling a first scatter signal from said first x-ray flux in a second imaging plane (col. 3, lines 45-55), generating a first compensation signal for said first scatter signal (col. 4, lines 13-17), generating a second x-ray flux in said second imaging plane (fig. 1, #6), generating a second image readout (col. 4, lines 13-18), compensating for scatter in said second image readout with said first compensation signal (col. 4, lines 7-10) by activating a first scatter correction algorithm (col. 3, line 65, to col. 4, line 4) in response to said second image readout and said first compensation signal (col. 4, lines 7-10), generating a first image display from said first scatter correction algorithm (col. 4, lines 16-18), digitally sampling a second scatter signal from said second x-ray flux in said first imaging plane (col. 3, lines 55-65), generating a second compensation signal for said second scatter signal (col. 4, lines 10-13), compensating for scatter in said first image readout with said second compensation signal by activating a second scatter correction algorithm in response to said first image readout and said second compensation signal (col. 4, lines 10-13), generating a second image display from said second scatter correction algorithm (col. 4, lines 16-18), wherein scatter correction steps are executed so that said first image display and said second image display are executed (fig. 2, at 4(off) and 6(off)) during different periods of time which are separated by at least one time period of current exposure (fig. 2, period between 4(off) and 6(off)) in both said first imaging plane and said second imaging plane.

However, Groh et al. fails to disclose periodically updating through stopping a current exposure in a second imaging plane and reading a scatter image update resulting from an

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exposure in a first imaging plane, and periodically updating through stopping a current exposure in said first imaging plane and reading a scatter image update resulting from an exposure in said second imaging plane.

Nonaka teaches periodically updating through stopping a current exposure in a second imaging plane and reading a scatter image update resulting from an exposure in a first plane, and periodically updating through stopping a current exposure in said first imaging plane and reading a scatter image update resulting from an exposure in said second imaging plane, which are also executed during different periods of time (fig. 2,  $S_{L1}$  and  $S_{F1}$ , and paragraphs 24 and 25).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the method of Groh et al. with the updating of Nonaka, since one would have been motivated to make such a modification for obtaining a better image (paragraphs 24 and 25) as implied from Nonaka.

6. Regarding claim 2, Groh et al. further discloses the sub-steps of activating a first scatter image formation algorithm (col. 3, line 65, to col. 4, line 4), generating said first compensation signal (col. 4, line 2), and necessarily storing said first compensation signal in a first scatter correction memory.

7. Regarding claim 10, Groh et al. further discloses generating a third x-ray flux in said first imaging plane (fig. 2, 4 (on)) and generating a third image readout (col. 4, lines 5-20).

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8. Regarding claim 11, Groh et al. as modified above suggests a method as recited above. Groh et al. further discloses generating a fourth x-ray flux in said second imaging plane (fig. 2, 6 (on)) and generating a fourth image readout (col. 4, lines 1-20).

However, Groh et al. fails to disclose digitally sampling a third scatter signal from a fourth x-ray flux in said first imaging plane, and generating a third compensation signal for said third scatter signal.

Nonaka teaches digitally sampling a third scatter signal from a fourth x-ray flux in a first imaging plane, and generating a third compensation signal for said third scatter signal (fig. 2,  $S_{L1}$  and  $S_{F1}$ , and paragraphs 24 and 25).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. with the third scatter and compensation signal of Nonaka, since one would have been motivated to make such a modification for obtaining a better image (paragraphs 24 and 25) as implied from Nonaka.

9. Regarding claim 12, Groh et al. as modified above suggests a method as recited above. Groh et al. further discloses generating a second digital scatter readout (col. 4, lines 1-4), generating a fifth x-ray flux in said first imaging plane (fig. 2, 4 (on) and 6 (on)), generating a fifth image readout (col. 4, lines 5-10), and compensating for scatter in said fifth image readout (col. 4, lines 10-13).

However, Groh et al. fails to disclose compensating with said third compensation signal.

Nonaka teaches compensating with said third compensation signal (fig. 2,  $S_{L1}$  and  $S_{F1}$ , and paragraphs 24 and 25).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. with the compensating of Nonaka, since one would have been motivated to make such a modification for obtaining a better image (paragraphs 24 and 25) as implied from Nonaka.

10. Regarding claim 15, Groh et al. as modified above suggests a method as recited above. Groh et al. further discloses further discloses activating a scatter correction algorithm (col. 4, lines 1-4, or claim 1) in response to said fifth image readout (col. 1, lines 1-20) and a compensation signal (col. 4, lines 10-13), and generating an image display from said scatter correction algorithm (col. 4, lines 1-4).

However, Groh et al. fails to disclose executing with a third compensation signal.

Nonaka teaches executing with a third compensation signal (fig. 2,  $S_{L1}$  and  $S_{F1}$ , and paragraphs 24 and 25).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. with the compensating of Nonaka, since one would have been motivated to make such a modification for obtaining a better image (paragraphs 24 and 25) as implied from Nonaka.

11. Regarding claim 51, Groh et al. further discloses wherein said object includes at least one item selected from the group consisting of a patient (fig. 1, P), baggage, a package, mail, liquid, and a vehicle.



12. Claims 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al. in view of Nonaka, Aisaka et al. (US 5021770) and Garland et al. (US 6244507).

13. Regarding claims 21 and 23 and for purposes of being concise, Groh et al. in view of Nonaka suggests a system as recited above. Groh et al. further discloses a gantry (col. 3, line 12), a host computer (fig. 1, #8) adapted to receive a first detector signal, a second detector signal, a first scatter signal, and a second scatter signal (fig. 1, from #5 and 7), wherein said host computer is operable to generate x-ray image data as a function of said first detector signal, said second detector signal, said first scatter signal, and said second scatter signal that is representative of internal portions of an object (fig. 1, P), said x-ray image data including first digital data representative of internal portions of said object when exposed to said first x-ray source (fig. 1, #4), and second digital data representative of internal portions of said object when exposed to said second x-ray source (fig. 1, #6) often simultaneously with exposure to said first x-ray source (fig. 2, 4(on) and 6(on)), wherein said first x-ray source (fig. 1, #4) is displaced from said second x-ray source (fig. 1, #6), said first digital data is modified to compensate for scattered radiation from said second x-ray source, and said second digital data is modified to compensate from scattered radiation from said first x-ray source (col. 4, lines 5-18).

However, Groh et al. fails to disclose periodically modifying during different periods of time, a data file and digital data representative of a characteristic of an object, wherein said object is a person and said third digital data is representative of at least one of the person's name, identification number, or physical condition.

Nonaka teaches periodically modifying during different periods of time (fig. 1; fig. 2, S<sub>LI</sub> and S<sub>FI</sub>; and paragraphs 24 and 25). Aisaka et al. teaches a data file (fig. 1, #2). Garland et al. teaches digital data representative of a characteristic of an object, wherein said object is a person and said third digital data is representative of at least one of the person's name, identification number, or physical condition (col. 1, lines 10-18).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the system of Groh et al. with the periodic modifying of Nonaka, since one would have been motivated to make such a modification for obtaining a better image (paragraphs 24 and 25) as implied from Nonaka.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the system of Groh et al. with the data file of Aisaka et al., since one would have been motivated to make such a modification for easier organization and retrieval (fig. 1, #2, and col. 4, lines 26-30) as implied from Aisaka et al.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the system of Groh et al. with the digital data of Garland et al., since one would have been motivated to make such a modification for standardizing files (col. 1, lines 19-28) as shown by Garland et al., which would provide easier retrieval and better compatibility with various systems.

Furthermore, it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the system of Groh et al. with a data file, since rearranging data on a computer involves only routine skill in the art. One would have been

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motivated to make such a modification to keep things more organized for faster processing or for easier searching.

14. Regarding claim 28, Groh et al. as modified above suggests a system as recited above.

However, Groh et al. fails to disclose wherein at least one image is of the person's chest cavity.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the image of a person's chest cavity, since such a modification would have only involved rearranging parts of an invention, which only involves routine skill in the art. One would have been motivated to make such a modification to better see inside that area.

15. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, Aisaka et al., and Garland et al. as applied to claim 21 above, and further in view of Grady (US 4426725).

Groh et al. as modified above suggests a system as recited above.

However, Groh et al. fails to disclose wherein first and second data are generated when first and second sources are located at three positions relative to a person, and wherein said at least three positions define an arc and are located along a straight line, and wherein said arc has a fixed radius.

Grady teaches wherein first and second data are generated when first and second sources (fig. 7, XA and XB) are located at three positions (col. 5, lines 28-32) relative to a person (fig. 7,

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P), and wherein said at least three positions define an arc (fig. 7, defined by #202 and 203) and are necessarily located along a straight line, and wherein said arc has a fixed radius (fig. 7, defined by #202 and 203).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the three positions of Grady, since one would have been motivated to make such a modification for having more information (col. 5, lines 28-32) as implied from Grady.

16. Claims 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al. in view of Nonaka and Humphrey et al. (US 2005/0267351).

17. Regarding claims 29-31 and 33 and for purposes of being concise, Groh et al. in view of Nonaka suggests a method as recited above.

However, Groh et al. fails to disclose generating a digital data representative of a characteristic of an object, a person's name, identification number, or physical condition, and generating a request for payment of money based upon at least said third digital data.

Humphrey et al. teaches generating a digital data representative of a characteristic of an object (paragraph 4), a person's name, identification number, or physical condition (paragraph 47), and generating a request for payment of money based upon at least said third digital data (paragraph 6).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the

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revenue generating of Humphrey et al., since one would have been motivated to make such a modification for keeping things better organized and obtaining more money (paragraphs 6 and 8) as implied from Humphrey et al.

18. Regarding claims 32 and 34, Groh et al. as modified above suggests a method as recited above.

However, Groh et al. fails to disclose exposing a person's chest cavity.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the step of exposing a person's chest cavity, since such a modification would have only involved rearranging parts of an invention, which only involves routine skill in the art. One would have been motivated to make such a modification to better see inside that area.

19. Regarding claims 35-37, Groh et al. as modified above suggests a method as recited above.

However, Groh et al. fails to disclose a step of transmitting data over a computer network, wherein said computer network is the Internet, a wide-area computer network, or a local-area computer network.

Humphrey et al. teaches a step of transmitting data over a computer network, wherein said computer network is the Internet, a wide-area computer network, or a local-area computer network (paragraph 37).

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It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the networking of Humphrey et al., since one would have been motivated to make such a modification for more easily transferring data to various locations (paragraph 1) as implied from Humphrey et al.

20. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, and Humphrey et al. as applied to claim 29 above, and further in view of Filler (US 2001/0051881).

Groh et al. as modified above suggests a method as recited above.

However, Groh et al. fails to disclose storing data in reference to a request for payment and data representative of payments associated with said request for payment.

Filler teaches storing data in reference to a request for payment and data representative of payments associated with said request for payment (paragraphs 3 and 18).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the storing of Filler, since one would have been motivated to make such a modification for better management (paragraph 3) as implied from Filler.

21. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, Humphrey et al., and Filler as applied to claim 38 above, and further in view of DiRienzo (US 2002/0194035).

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Groh et al. as modified above suggests a method as recited above.

However, Groh et al. fails to disclose determining a service charge associated with a request for payment.

DiRienzo teaches determining a service charge associated with a request for payment (paragraph 21).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the service charge of DiRienzo, since one would have been motivated to make such a modification for better making sure someone pays for administrative costs as well (paragraph 21) as implied from DiRienzo.

22. Claims 40, 42, 43, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al. in view of Nonaka, Karellas et al. (US 2003/0169847), and Motoki (US 6920465).

23. Regarding claim 40 and for purposes of being concise, Groh et al. in view of Nonaka suggests a system as recited above.

However, Groh et al. fails to disclose digital detectors and wherein a data processor is further configured to store digital data representative of a characteristic of an object.

Karellas et al. teaches digital detectors (paragraph 7). Motoki teaches wherein a data processor is further configured to store digital data representative of a characteristic of an object (col. 5, lines 40-45).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the detectors of Karellas et al., since one would have been motivated to make such a modification for a more compact system (paragraph 4) as implied from Karellas et al.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the data storing of Motoki, since one would have been motivated to make such a modification for easier image identification (fig. 7) as implied from Motoki.

24. Regarding claims 42 and 46, Motoki further teaches wherein a characteristic is one of a person's name (col. 5, lines 40-45).

25. Regarding claim 43, Groh et al. further discloses a human viewable display for generating an image associated with data (col. 4, lines 16-18).

26. Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, Karellas et al., and Motoki as applied to claim 43 above, and further in view of Annis et al. (US 6628745).

Groh et al. as modified above suggests a system as recited above.

However, Groh et al. fails to disclose a conveyor for supporting an object, wherein said object is one of baggage, packages, liquid containers, or envelopes, or wherein said object is a vehicle.



Annis et al. teaches a conveyor for supporting an object, wherein said object is one of baggage, packages, liquid containers, or envelopes (fig. 9), or wherein said object is a vehicle (fig. 15).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the objects of Annis et al., since one would have been motivated to make such a modification for more easily inspecting (figs. 9 and 15) as implied from Annis et al.

27. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, Karellas et al., and Motoki as applied to claim 46 above, and further in view of Yonekawa (US 6504897).

28. Regarding claims 47 and 48, Groh et al. as modified above suggests a system as recited above.

However, Groh et al. fails to disclose wherein a human viewable display is configured to further generate alphanumeric or graphical images representative of a characteristic simultaneously with an image, wherein said characteristic is one of a name.

Yonekawa teaches wherein a human viewable display (fig. 11) is configured to further generate alphanumeric or graphical images (fig. 11, B) representative of a characteristic simultaneously with an image (fig. 11, C), wherein said characteristic is one of a name (col. 31, lines 51-57).

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It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the display of Yonekawa, since one would have been motivated to make such a modification for easier image identification (col. 31, lines 51-57) as implied from Yonekawa.

29. Regarding claim 49, Groh et al. further discloses a gantry (col. 3, line 12).

30. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al., Nonaka, Karellas et al., Motoki, and Yonekawa, as applied to claim 49 above, and further in view of Cheung (US 6005911).

Groh et al. as modified above suggests a system as recited above.

However, Groh et al. fails to disclose a network interface.

Cheung teaches a network interface (col. 11, lines 1-11).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the system of Groh et al. as modified above with the network interface of Cheung, since one would have been motivated to make such a modification for more easily transferring data (figs. 12 and 13) as implied from Cheung.

31. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Groh et al. and Nonaka as applied to claim 9 above, and further in view of Ozaki (US 6876719).

Groh et al. as modified above suggests a method as recited above.

However, Groh et al. fails to disclose wherein said x-ray imaging system is a computed tomography (CT) system.

Ozaki teaches wherein an x-ray imaging system is a computed tomography (CT) system (title).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to further modify the method of Groh et al. as modified above with the CT system of Ozaki, since one would have been motivated to make such a modification for obtaining a more detailed image compared to images with a single projection.

### ***Response to Arguments***

32. Applicant's arguments with respect to claim 1, 2, 9-12, 15, 21, 23-26, 28-40, and 42-52 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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